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AUTHOR Putzi, Simone

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ABSTRACT

A study examined the position of phonics instruction or direct skill instruction within the context of a whole language, meaning-based approach to reading instruction. A total of 22 first-grade students participated=12 students received instruction in phonics while 10 followed a meaning based curriculum. All were administered a phonics test and a reading test. Results indicated an increase in both groups' phonics scores and a slight increase in reading scores with the group that had no phonics instruction. (Contains 14 references and 2 tables of data. A sample phonics test and a sample reading test are attached.) (Author/RS)

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Phonics in a Meaning Based Instructional Program

by

Simone Putzi

A Thesis Presented to the Faculty of the Dominican College Department of Education in Partial Fulfillment of the Requirements for the Degree of Master in Science in Education: Curriculum and Instruction

Running Head: Phonics Instruction

San Rafael, CA May 1993

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Abstract

Reading programs at present are insufficient to meet the needs of the beginning reader. This study examined the position of phonics instruction or direct skill instruction within the context of a meaning-based approach to reading instruction. Reading instruction has shifted from basal reader, phonics based program to a whole language, meaning-based approach. Often the phonics instruction has been eliminated. A total of 21 first grade students participated in this study. Twelve students received instruction in thomics while ten received instruction following a meaning based curri glum. All were administered a phonics test and a reading test. Femilts indicated that there was an increase in both groups' phonics scores and a slight increase in reading scores with the group that had no phonics instruction.





The Illiterate

Touching your goodness, I am like a man who turns a letter over in his hand. And you might think this was because the hand was unfamiliar but, truth is, the man. Has never had a letter from anyone; And now he is both afraid of what it means and ashamed because he has no other means. In find out what it says than to ask someone.

His uncle could have left the farm to him. Or his parents died before he sent them word, Or the dark girl changed and want him for beloved. Afraid and letter-proud, he keeps it with him. What would you call his feeling for the words that keep him rich and orphaned and beloved?

William Meredith





Acknowledgements

I would like to thank Madalienne Peters for all of her support, assistance, and encouragement throughout this process. She gave me the confidence to begin, continue, and most of all complete this project. Thank you for all your time and effort.

I would also like to thank Barry Kaufman and Cynthia Prown for giving me the tools to embark on this journey. I have a larger scope of the educational process and what the term education means and I thank both of you for broadening my vision.

In addition, I am grateful for the assistance that Evelyn Hiy and Susan Heales gave me to complete this project by modeling widerful reading instructional programs. They are teachers in a most difficult environment and yet they daily give to their students that most wonderful gift of reading.

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Introduction

Reading instruction at the first grade level is inadequate in meeting the needs of all students in an inner city environment. The reading program is based on whole language techniques with a smattering of word attack skills that seem random and inconsistent. After three months of instruction, students have a 'imited sight word vocabulary and limited skills in decoding words, particularly in the phonetic realm. A child might be able to use picture and context clues to come up with a word that makes sense but often is not the actual reading word. Other districts promote more phonics based reading programs which produce students who can successfully decode words and in addition are more fluent readers than my own students. In response to this difference, this study explores the success of whole language and phonetic reading methods.

Statement of the Problem:

what is the position of phonics instruction or direct skill instruction within the context of a meaning based approach to reading instruction? Phonics instruction refers to the part of reading instruction that helps the learner understand that letters in words represent speech sounds and which sound is associated with which letter. Phonics is a strategy of sounding out words or syllables that have not been seen before. If the





word itself is in the student's experience the student will be able to label that experience with a specific word. Direct instruction refers to the actual teaching of isolated reading skills in an explicit lesson, Meaning-based approach to reading is the act of creating meaning from a text. The whole language approach supports this focus. Students learn to read, not as the number of skills acquired through direct instruction, but practice acquired through experience in reading whole stories, poems and other units of reading.

Rationale

Reading proficiency is important to academic success in all subject areas as well as for reading pleasure. The more effectively a student can decode, comprehend and create meaning from a text, the more proficient the child will be at reading. Thus, an effective reading program is fundamental for readers at all levels. Becoming a Nation of Readers (1985) lays the foundation that a phonics-only based reading program is not enough to create meaning from print. In an effort to bring meaning into reading, educators such as Goodman (1989) began to develop alternative reading programs such as the "Whole Language" approach which have emphasized comprehension. In the process, skill or phonics instruction has often been ignored or even eliminated from reading programs, even despite the recommendation





from research that skills instruction has an important part in a solid reading program. The issue becomes what is the position of phonics instruction in a meaning based approach to reading instruction.

History, Background

The debate on effective reading strategies has been ongoing. For many years educators relied on the basal reader to teach incliden to read. Research indicated that many students were able to phonetically sound out words but had little or no comprehension of the text they were reading. In addition, basal readers were from antificial and stilted in nature. The whole language techniques were designed to give children real literature which had meaning. This would serve to motivate children to understand language for language's sake and to better comprehend text materia!

At its most extreme, whole language reading programs contain little or no phonetic decoding strategies resulting in a situation where students can perhaps comprehend the deeper meaning of a text when read to but cannot decode enough words to read the text independantly. The question is, therefore, what is the balance point between phonetic or direct skill instruction and whole language reading techniques that will best he's children create meaning from a text?







Literature Review

Whole Language and Language Experience Approaches

Stahl and Miller (1989) reviewed studies of whole language and language experience approaches and basal reader approaches. They examined 49 studies on this topic. They reported that in kindergarten whole language and language experience approaches may be more effective than in first grade, whereas in first grade the approaches had similar results.

Downing /as cited in Stahl & Miller, 1989) identified three stages in reading: a cognitive phase, a mastering phase and an automaticity phase. The cognitive phase is the beginning print awareness stage where words are linked to printed material as well as oral language. The whole language process as far as exposing children to print appears to be more effective than phonics practice at this point.

The mastering phase Downing links with the beginning stages of reading. Stahl and Miller found that at this stage basal and whole language approaches become more equal in effectiveness in student success, except in low income areas. In low socioeconmomic communities, the basal approach is more effective than whole language approaches.

Automaticity refers to the phase where skills are practiced until they can be performed automatically. Because





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the researchers limited their study to kindergarten and first grade, they could not evaluate the effectiveness of the basal or whole language approaches.

The authors are cautious about some whole language approaches. These approaches do not take into account an intermediate stage that children go through in which direct and systematic phonics instruction assist them in mastering word recognition. They recommend that good reading instruction should include the goal that children become effective in creating meaning from texts in addition to the goal of having direct skill instruction and reading aloud to children.

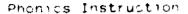
One of the limitations that Stahl and Miller point out with the meta analysis is that it was limited to studies of Findergarten and first grade. Whole language/language experience approaches may be more effective once children have emerged from the mastering stage.

Another limitation was that researchers often use ethnographic studies to support whole language approaches which are broad based in scope. Stahl and Miller suggest limiting future research to isolated components of beginning reading programs.

Reading Achievement

Eidrege (1991) compared students in a modified whole language classroom which had is minutes of phonics instruction a





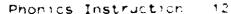
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day with students in a basal reading program. He found that the students in the modified whole language classroom made greater gains in phonics, vocabulary, reading comprehension, and total reading achievement than students in the basal program.

Nicholoson's (1991) study, reevaluated the research study by Kenneth Goodman (as cited by Nicholoson). Goodman found that children made 60%-80% fewer errors when reading words in context as compared with reading words in an isolated list. Nicholson wanted to see if the effect of order had anything to do with Goodman's results. Goodman had children read a list of words and then read the words in context. Nicholson conducted two experiments. In the first he switched the order of Goodman's experiment by having children read the target words in context and then in list form. Here, he found that children's scores were higher when reading the lists. In the second experiment, Nicholson replicated the order of Goodman's experiment and found results similar to Goodman's. This, Nicholson reported, indicates that the classic study of Goodman overemphasized the positive effects of context.

Nicholoson selected 100 students from two suburban schools in a regional city of New Zealand. The schools drew on a wide socioeconomic base. The subjects included 32 six-year olds. 34 seven year olds, and 34 eight-year olds. There were 53 girls and 47 boys, within each age group, there were similar numbers of





good, average, and poor readers, as determined on the basis of reading levels provided by the schools. These scores were checked for accuracy against the prose test that was within the study.

Children were asked to first read passages in context and then read the same material in list form. This was done opposite to what Goodman had done in his original study. The passages were illustrated, just as they were in the first study. The lists were the passages typed backwards with the last word to the first in vertical columns. Children were tested individually and given reading passages that matched their reading ability. The passage was read one day and then a few days later the child read the list form.

The tests were scored by marking all errors except self-corrections. Omissions and additions were considered errors. Differences in error scores were compared in terms of raw score differences and percent gains. Thests were used to analyze scores.

The results indicated that the average 6- and 7-year cld readers made significant gains when reading the words in context. The 6- and 7-year old good readers, as well as the 8-year old average made no significant gains, and the 8-year old good readers gained significantly when reading the words in list form.

Nicholson then repeated the same test except reversed the crider of the tests. First he had children read the list forms and then read the prose passages. Ninety-seven students were used





from a different suburban school in the same city as in experiment 1. The students came from a predominately middle-class base. The group included 33 six-year olds, 34 seven year olds, and 30 eight-year olds. There were 47 girls and 50 boys. The reading levels were checked for poor, average, and high on the basis of senior staff judgement and school test scores as well as the prose test within the study.

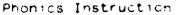
that the list and context order was reversed and that the sixyear olds in this study were tested within the same week whereas the seven and eight-year olds had to wait longer to be retested. The scores were analyzed in the same manner as the first.

The results showed that most groups made significant gains in reading the words when in context except for the 7- and 9- year old good readers. They showed no significant gains.

as Nicholson suggests, Goodman's findings might have over emphasized the effects of context. Good readers do not seem to rely on context as much as poor readers which perhaps means that they are relying on other decoding skills to get at the word.

phoneme identity increased preschoolers' achievement in identifying phonemes. In addition, the trained group achieved higher reading scores on the word identification. A small group of students, though, who did well in identifying phonemes did poorly on the word recognition test. The researchers concluded





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that knowledge of phoneme identity and knowledge of letter sounds are necessary but not sufficient conditions for acquiring functional use of the alphabetic principle.

Reutzel and Cooter (1990) compared two basal reading classrooms with two whole language classrooms to find out if reading achievement differed between the two groups. They found that students taught bywhole language approaches had comparable or better scores on traditional reading achievement tests than students taught by basal reading approaches.

Phonetic Instruction

Foorman, Francis, Liberman, & Novy (1991) in a study of six first grade classrooms showed that when teachers used more letter-sound instruction in teaching reading, student scores improved from 20% to 51% accuracy in reading irregular words from the beginning of the year to the end of the year. Whereas those classrooms using less letter-sound instruction only improved from 17% to 35%. In addition, in reading regular words, those classes using more letter-sound instruction moved from an accuracy rate of 31% to 80%, whereas those that did not increased from 30% to 60%.

Practices in the Classroom

Groff (1992) points out that the furor over whether phonics instruction helps reading achievement has forced educators to





look at phonics programs and improve and change to provide a better program.

There are four areas of growth that Groff identifies. The first is linguistic accuracy, Former basal readers and instructor's manuals had errors which linguists identified as weak phonics instruction. As a result, publishers have hired linguists to make sure that these errors are caught and weeded but.

Second, because of the attacks against phonics instruction, educators have come to have a more realistic judgement on what shonetic skills can do for reading achievement. Phonics can kelp a child to make an approximate pronounciation of a new word, but can not be expected to apply to all words.

Third, overlearning a rule is still a problem. Because teachers are unsure when a child has learned a rule, they make sure that each child learns everything even though a child may already know the rule. Groff recommends more reliable, valid and systematic testing that can aid the teacher in moving more rapidly through a phonics program.

Fourth, explicit phonics instruction does not seem to impede development of phonics skills and so teachers can use implicit and explicit phonics instruction to enhance reading achievement. Groff concludes that rather than ask the question of whether phonics skills should be taught the question should be how.





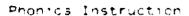
Trachtenburg (1990) argues that effective reading programs combine the strengths of both whole language and phonics perspectives. She recommends a whole-part-whole sequence in teaching reading in which first there is a reading, comprehending and enjoying a literature selection, then a focused phonic/skill instruction component, and finally, applying the new phonic skill to reading another literature selection.

teach only the most important and regular sound-symbol relationship and this approach should be used discriminatingly and selectively. In other words, teachers should apply direct instruction as needed.

Spread (1992) lists the benefits of whole language and direct instruction and makes suggestions on how to combine the two. According to Spread, whole language has liberated teachers and children to use a variety of materials and activities to explore literacy and play with language. Furthermore, whole language has brought together three components of literacy, writing, children's literature, and authentic forms of assessment.

Sprege? also points out the advantages of systematic direct instruction of skills. With direct instruction teachers can use goal-oriented lessons to provide students with reading strategies and enough practice to apply those strategies effectively. In addition, lower socioeconomic children who do not have access to





print rich and literate environments, have a more difficult time at acquiring the skills necessary to read. They need the benefits of direct skill instruction to help them break the code of reading.

In companing the two approaches, Spiegel suggests that direct instruction does not need to be a skill and drill approach but can be applied with authentic, whole materials. Furthermore, whole language advocates making full use of the teachable moment. Direct instruction can make full use of this important learning process while also providing an overall scope of where students and teachers are heading and ensure that skills are covered to enable includents to read.

McCracken & McCracken (1982) states that phonics deals with the sounds of the language and chat children need to learn to use the sounds to create meaning from words and passages. In teaching how print works, she points out three components: one, the sound-letter relationship, two, the sequencing of letters, and finally, the patterns that are in words. These skills need to be taught directly and ther put into practice.

Arthur Heilman (1989) says that phonics is not a method of teaching but rather a way a child solves a word that is not a sight word and should be thought of as one strategy in helping the beginning reader to decode new words. He understands that reading is getting meaning but points out that learning to read is more than that. For, the beginning reader can understand what





words mean but has difficulty identifying what the word is.
Heilman identifies three skills a child needs to acquire in order to help him decode words. One, the child should master and apply letter-sound relationships. Two, a child needs to enlarge her sight word vocabulary and three, a child should use context clues to provide solutions to new words. Heilman says several times that "the optimum amount of phonics instruction a child should receive, is the minimum amount a child needs to become an independant reader."

Discussion

Research results are mixed on which approach is more effective in reading achievement, whole language or phonics. For example, Reutzel and Cooper found that whole language classrooms had higher reading achievement scores whereas Foorman et. al. showed that more letter-sound instruction classrooms had better results.

Part of the difficulty lies in that researchers seem to think it is an either/or proposition rather than seeing both as parts of the whole. Each has its place in assisting the beginning reader to take a text and derive meaning from it.

Stahl and Miller's study points to various stages of reading in which one approach is more effective in one stage and another is more effective in another. Although a bridge between the two approaches begins to be built in that each has its season, there





as still a sense, after reading their study that the approaches can not be used simultaneously.

Byrne and Fielding-Barnsley's conclusions should direct aducators toward weaving the two approaches together. While phonics is important, it needs to be one of various strategies to assist the early reader within a meaning based reading instructional program.

Another problem seems to be the biases cowards and against the various approaches. For example, many whole language proponents fear that there will be a reversal to the drill and will practices of earlier years. As Groff points out, phonics instruction has developed and matured over the years. One good change is that many teachers have a more realistic view of what phonics can really achieve and see that it is not a magical formula.

As Trachtenburg, Spiegel, McCracken, and Heilman all say, reading instruction needs to combine the best of both. Both strategies give the beginning reader skills needed to decode new words and create meaning out of a text. Some children will need more phonic skills and others will need more real literature experience to become better readers, but all children need the whole program rather than just part of the program to be successful.

There are few studies to show what the effect of phonics is within a whole language, meaning based instructional program.





Eldredge's study attempted to cross that bridge by comparing a modified whole language classroom with a basal approach. His results indicate that indeed a combination of the two seems to be more effective than just a straight basal classroom. This present study seeks to discover whether phonics instruction makes a difference within a whole language classroom.

Methods and Procedures

Twenty-six students from a low, urban socioeconomic school were pre-tested on three tests: a phonics test, a reading test, and a reading comprehension test. The phonics test came from the student's Houghton Mifflin placement survey booklets. The teacher said a word and children were to circle the correct word. The phonetic skill was blends to which the children had had no exposure to up until this time. The phonics test was given in a group setting. The reading test was of a never seen before text from their Houghton Mifflin reader. Each child read the complete text while teacher recorded miscues.

The first reading passage contained 177 words. Scoring involved marking all errors including omissions in which words were skipped because of difficulty or not being noticed and substitutions in which text was replaced by other words. Self-corrections were not counted as errors.

Students were placed into two heterogeneous groups. Group A received two weeks of instruction on using context clues to





create meaning from the text. Group B received two weeks of phonics instruction of the blends ch, wh, sh, and th. Students were first taught to recognize the blend, then use it in decoding words, and then applying their new skills in texts that they were reading.

At the end of two weeks, both groups were tested on a phonics and reading. Again the phonics test came from the student's placement survey booklet and the text had not been read before. The text this time contained 196 words.

Paw scores were averaged for each group and the standard deviation found.

Group A							
Subjest	Phunics Test		Reading Test				
3 (4 kg) (11 (3 / 5	P, e	Post	Pre	Post			
# ?			64/177	40/196			
# ? # 5	17/21	20/21	21/177	31/196			
# 7	19/21	18/21	15/177	15/196			
#13	15/21	16/21	68/177	74/196			
#15	17/21	19/21	32/177	30/196			
#16	19/21	20/21	6/177	1/136			
#!7	18/21	20/21	19/177	20/196			
	19/21	18/21	41/177	49/196			
#19	7/21	15/21	80/177	66/196			
#20	13/21	18/21	66/177	42/196			
#23 #27	15/21	21/21	53/177	75/196			



SD = 1.8

x = 15.9

SD = 3.5

x = 42.27

SD = 24.11 SD = 16.34

x = 43.45



Phonics Instruction

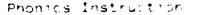
		Group B		
# 1	17/21	21/21	17/177	€ ' *9€
# 0			22/177	38/1 96
#4	17/21	16/21	59/177	47 196
#6	17/21	20/21	27/177	13/196
# 9	21/21	21.21	0/ 177	ଠ :•9€
#10	15/21	16/21	35 177	42 (196
#11	12/21	13/21	44/177	61/196
#14	16/21	16/21	50/177	57/196
# 18	17/21	20/21	69/177	55 19€
# 요 #24	·4/21	15/21	44/177	55/196
# 25			32/177	64 1196
	14/21	20/21	19/177	21/196
#26 #29	16/21	20/21	24/4-4	25/196
* . 3	0/L (
	, ± + +	ត្ន បា	n = 13	n = 13
	× ± 16	» = 18	· ± 34,46	× ≈ 37.23
	50 = 2.22	3D = 2.27	SC = 17.83	50 - 21.09

Results

The results indicate that there was an increase in Group A's phonics scores and a slight increase in reading scores. This group was not exposed to any phonics instruction within that two week time period except for two 40 minute time periods in a computer lab which exposed all students in this experiment to imitial consonants.

Group B's phonics scores show there was an increase and the reading scores seemed to have stayed static. Again, this group received thirty minutes of phonics instruction a day within a meaning based reading program.





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The biggest drawback of this study was the length of time.

Two weeks is not enough time to give a clear picture of how effective direct phonic instruction is. In future studies a longer time period of perhaps several months or even a year would be more appropriate.

Overall this study indicates that there seems to be no difference made with phonetic instruction. Yet, as students were being tested, it was clear that most students, both in Group A and Group B, were using sounding out skills to assist them in decoding unfamiliar words. The best readers used a combination of the two, the middle group either used context or phonics strategies to attack an unfamiliar word, and the lowest group seemed to rely on phonics as their only strategy. In addition, this lowest group would only use phonics strategies on the initial constonant and then guess at the word rather than attempting to sound out the whole word. This was in contrast to the high group and some of the middle group students who would sound out the whole word. Two students, who were initially part of the study, were dropped because they were unable to read any part of the text except for some isolated words. Of these two children, one child has been absent 38 days of the first 96 days of school and the second has been in school 20 days. Both thildren spent limited time in kindergarten. Both have had little exposure to literature and even less of phonics instruction.





Research and this study do not show as yet any truly conclusive results that either phonics or whole language methods are better. Rather, it points toward an integrated reading curriculum. One, where both are part of a program to help a child create meaning from a text, whole language methods have done uniform great services in that it allows children to play with language, see the larger picture, and enjoy literature. But phonics instruction has its place as well. It gives children simpliculated to decipher a text and begin becoming independant readers, that children use some form of phonics to help them decode new words seems evident but how much phonics a child needs in order to become a better reader is yet unclear. As this study shows, thirt, minutes a day additional phonics instruction does not seem to make a great difference. So perhaps a shorter amount of time would be sufficient.

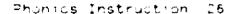
In reviewing various phonics programs, the McCrackens' approach to phonics seems to be sound. They see phonics within in the spelling program and that actual instructional time be no more than five minutes per day. Then, the child is to apply what was taught in reading and most especially in writing. The reasoning behind this is that phonics gives a child some building blocks to move forward in the reading and writing process. Whether five minutes of phonics instruction is sufficient, particularly in low-income teaching environments, is perhaps debatable. Although, the ideal amount of time to spend on phonics





the reasoning for phonics should be clear. It should be seen as a tool to help the beginning reader to create meaning from a text. This is possible if the phonics program is embedded in a well rounded, literature and print rick, reading environment.





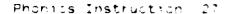


References

- Anderson, R.C., Hiebert, E.H., Scott, J.A., & Wilkinson, I.A.G. (1985) Becoming a Nation of Readers: The Report of the Commission on Reading. Washington, DC: National Institute of Education.
- Byrne, Brian, & Fielding-Barnsley, Ruth. (1991). Evaluation of a Program to Teach Phonemic Awareness to roung Children.

 Journal of Educational Psychology, v.83, n.4, 451-455.
- Fidredge, J. (1991). An Experiment with a Modified Whole Language Approach in First-Grade Reading. Reading Research and Instruction, v.30, n.3, 21-38. Spring 1991
- Figrman, B.; Francis, D.; Eiberman, D.; & Novy, D. (1991). How Letter-Sound Instruction Mediates Progress in First-Grade Reading and Spelling. Journal of Educational Psychology, v.83, n.4, 456-469.
- School Journal, v.90, n.2, Nov. 1989.
- Groff, P. : 1986). The Maturing of Phonics Instruction. The Reading Teacher, v.39, n.9, 919-23, May, 1986.
- Heriman, Arthur, (1989), Phonics in Perspective, Columbus, CH: Merrill Publishing Co.
- McCracken, Robert & Marlene. (1982). Spelling Through Phonics: A Practical Guide for Kindergarten through Grade 3. Winnipeg, Manitoba: Peguis Publishers Limited.
- McCracken, Marlene, (1992). Literacy Through Teaching Spelling.
 A video introduction to Spelling Through Phonics. Canada:
 McCracken Educational Services.
- hicholson, Tom. (1991). Do Children Read Words Better in Context or in Listsh A Classic Study Revisited. Journal of Educational Psychology, v.83. n.4, 444-450.
- Pegtiel, D. & Cocter, B. (1990). Whole Language: Comparative Effects on 1st Grade Reading. Journal of Educational Research, v.33, n.5, 252-257. May-Jun 1990.
- Opingel, D. 1989: Content validity of Whole Language Materials. Reading Teacher, v.43, n.D. 158-169, Nov. 1989.





Stan', Steven & Miller, Patricia, (1989). Whole Language and Language Experience Approaches for Beginning Reading: A Quantitative Research Synthesis, <u>Review of Educational</u> Research: v.53, n.1, p87-116. Spring 1989.

Trachtenburg, P. (1990). Using Children's Literature to Enhance Physics Instruction. Reading Teacher, v.43, n.9, 648-654.

May.



Appendix A

Sample of Phonics Test





onsonant Clusters								
:								
h								
ζ.								
•								
e								
,								
A '								
1								
ie								
1								



Appendix B

Sample of Reading Test





Read the story. Then circle the answers to the questions.

Mr. Robot

"Come in, Bear!" said Duck.

"You're just in time for lunch."

"What do you have here, Duck?" asked Bear.

"This is Mr. Robot!" said Duck.

"He's going to work for me. He will make a nice lunch for us.

Mr. Robot, go get lunch."

"I like Mr. Robot," said Bear.

"He can make lunch for me anytime!

May I please have a little more?"

"You may have all you want, Bear,"
Duck said. "Go, Mr. Robot. Bring
Bear some more lunch."









"This is fun. Duck!" said Bear.

"Mr. Robot makes a good lunch."

"Would you like some more?" asked Duck.

"Oh, no, thank you," said Bear.

"I have had much too much lunch!"

Duck said, "You may go now, Mr.

Robot. We don't need any more lunch."

"Duck!" said Bear. "Look at Mr.

Robot now. He's bringing us some soup!"

"No, Mr. Robot!" said Duck.

"I didn't ask you to bring us soup.

We don't want any more lunch!"

"Duck!" said Bear. "Look at Mr.

Robot now. He's bringing us more lunch!"

"Oh, no! Oh, no!" said Duck.

"Why are you doing this, Mr. Robot?

You are bringing too much!

We don't want any more lunch!"



